

# Exploring the Importance of Different Product Cues on the Selection for Chocolate from the Consumer Perspective

Ezeni Brzovska, Durdana Ozretic-Dosen

**Abstract**—The purpose of this paper is to deepen the understanding of the product cues that influence purchase decision for a specific product category – chocolate, and to identify demographic differences in the buying behavior. ANOVA was employed for analyzing the significance level for nine product cues, and the survey showed statistically significant differences among different age and gender groups, and between respondents with different levels of education. From the theoretical perspective, the study adds to the existing knowledge by contributing with the research results from the new environment (Southeast Europe, Macedonia), which has been neglected so far. Establishing the level of significance for the product cues that affect buying behavior in the chocolate consumption context might help managers to improve marketing decision-making, and better meet consumer needs through identifying opportunities for packaging innovations and/or personalization toward different target groups.

**Keywords**—Chocolate consumption context, chocolate selection, demographic characteristics, product cues.

## I. INTRODUCTION

THIS paper presents a study performed in the Republic of Macedonia, undertaken to explore the extent to which consumers with different demographic characteristics differ regarding the importance of the product cues used in the process of evaluation of a food product (chocolate). A considerable amount of research has been devoted to examining which product cues consumers use most often when evaluating food product in developed markets [1]-[8]. Contrary, there are only a few studies in the emerging markets of Southeast Europe [9], [10]. This study is the first among Macedonian consumers.

The global chocolate industry has been in a moderate growth trajectory for the last several years, fueled by the increased global demand especially for premium chocolate [11]. Confectionary companies operate in a challenging and highly competitive environment, inundate with many domestic and foreign products. Due to the importance of identifying whether different product cues have significant differences across demographic variables [12]; our general research question is whether consumers with different demographic

characteristics have significantly different levels of importance on the same product cues when deciding which chocolate to purchase. Our aim is to improve the understanding of the buying behavior in the context of the specific product category (chocolate) and market (Southeast Europe, Macedonia). Our findings might provide valuable insights for chocolate producers and marketers wishing to improve their marketing decision-making.

## II. LITERATURE REVIEW

Food consumer behavior is a result of various factors, including product cues of specific foods, consumers' motivations and the environment in which food choices occur [13]. Many authors investigated the effects of different levels of importance of food product cues on consumers' perceptions and affective responses to buy products. Reference [14] shows the effect of price and brand on perceptions of quality and value, and on a willingness to buy. According this study, brand name significantly increased perceived quality and willingness to buy a food product, whereas effects of odd and even prices had no difference in perceived quality, value, and willingness to buy. Other studies enabled classification of different food product attributes into value-related attributes, consequence-related attributes, and physical characteristics [15], or extended it to five groups: comprise of physical, component, risk, image and accessibility attributes [16].

The research undertaken so far in the specific chocolate consumption context revealed numerous relevant aspects and interesting findings. Reference [4] shows and tested models of buyers' perceptions of value with a particular emphasis on buyers' use of different product cues; they integrated thirteen chocolate attributes as basic elements in the consumer decision-making process. Furthermore, demographic characteristics as influencing factors were also incorporated in the Model of chocolate choice and in the Model of cognition and affection-related behavioral intention to eat chocolate [4]. Most consumers spend a limited time when choosing chocolate, and rely only on a few product cues in the process of evaluation [9]. Companies often rely on chocolate packaging in attracting young consumers and influencing consumers buying decision [12]. Placing pictures on packages significantly improved brand beliefs and increase consumers' attention to the brand; however, brand evaluation effects occurred when the conveyed benefits were important to the consumer [17], [18]. The impact of the attractive package was confirmed in gaining consumers' attention in the retail

Ezeni Brzovska is with Faculty of Economics - Skopje, Ss. Cyril and Methodius University, Skopje, Macedonia. She is now Assistant Professor at the Marketing Department (phone: 0038970290111; e-mail: ezeni@eccf.ukim.edu.mk).

Durdana Ozretic-Dosen is with Faculty of Economics & Business, University of Zagreb, Croatia. She is now Full Professor the Marketing Department (e-mail: dozretic@efzg.hr).

environment and in strengthening consumers' intention to buy chocolate [6], and packaging tended to increase the value of the chocolate [7].

Reference [8] confirmed the effect of packaging color in stimulating purchase intent to buy chocolate and found that the most influential color in stimulating purchasing of chocolate is purple.

Product quality and price were found as the two most significant cues used by consumers in products evaluation [19]. Other studies revealed the influence of chocolate prices on consumer behavior and high price consciousness of consumers of chocolate bars and confectionery [2], [5].

Sensory product cues, such as scent and flavor, were found as the most influential on the purchase of food product [20]. Other authors found taste, previous experience, and product quality, followed by reliability, value for money and availability as the most important criteria influencing the chocolate purchase [21]. Taste, product line size, and country of origin proved to be dominant product cues influencing the choice of particular chocolate brand [9]. Reference [22] showed a very high correlation of chocolate ingredients and seasonal popularity with buying behavior.

From the presented short literature review it can be concluded a) that different product cues have a significant effect on food product evaluation, and b) that strong associations between product cues and perceived value have significant direct linkages with consumer willingness and intention to buy.

Few studies [8], [21], [23] explored the importance of the product cues on the buying intention for chocolate among consumers with different demographic characteristics and showed a mixture of results. Quality/freshness, price, together with trying to eat healthily and family preferences were found as the most important for women, whereas it is taste and habit for men [23]. Also, the price seemed to be the most important for unemployed and retired subjects. Older consumers were much more quality oriented than younger ones, and women appreciated more image, country of origin, and friends' recommendation compared to men [21]. Others investigated the impact of various packages' colors on purchase intent and found that consumer's income level has no bearing on the manner in which they respond to packages' colors, regarding both spontaneous response and brand loyalty [8]. In line with the previous cumulative findings from the literature review, we pose the following four hypotheses:

**Hypotheses 1.** There are gender differences concerning the evaluation of the importance of different product cues.

**Hypotheses 2.** There are differences concerning the evaluation of the importance of different product cues among different age groups.

**Hypotheses 3.** There are differences among respondents' intentions evaluation of specific product cues regarding their level of education.

**Hypotheses 4.** There are differences among respondents' evaluation of specific product cues, regarding their income level.

### III. RESEARCH METHOD

Primary data were collected by surveying Macedonian citizens, using a structured questionnaire. The questionnaire was compiled according to instruments used in several studies [9], [16], [21]. Respondents were asked to express (on a five-point Likert scale) the level of importance related to the each of the nine product cues, regarding these impacting the likelihood of purchasing chocolate. A non-probability sampling method was used, conventionally distributing the questionnaire to 360 respondents. A total of 312 responses were received. After conducting the data screening procedure, 290 valid responses remained (an 80.5% response rate). Most of the respondents were female (61.4%). Regarding the level of education, most had a bachelor degree (65.2%) or high school diploma (29.7%). Concerning the income level, more than half of the respondents (55.2%) belonged to the category 20.001-60.000 dinars (325Eur -975Eur). The respondents up to 35 years were dominant.

The obtained data were analyzed in SPSS. Besides the descriptive statistics, ANOVA test was employed to explore differences in the level of importance for the brand image, taste, variety, package design, availability, nutrition information, country of origin, promotional activities and price, regarding age, gender, education and income level.

### IV. RESEARCH RESULTS

The most important results, relevant for the testing of the proposed hypotheses are presented in Table I. The level of significance is observed to be  $p < 0.05$  on differences between gender evaluation related to the importance of using particular product cues when choosing chocolate. The differences between males' and females' evaluation of particular product cues observed to be significant ( $p < 0.05$ ) for the taste (0,013), availability (0,041) and packaging (0,008). Namely, the female respondents express a higher level of importance for taste (4.90), availability (3,90) and packaging (3.62), compared respectively to the mean of male respondents for taste (4.75), availability (3,66) and packaging (3.27). Regarding other product cues, no significant differences are found. Based on these results, ***Hypotheses 1 is confirmed.***

Regarding age differences in ranking the level of significance for different product cues, the ANOVA test showed that there were significant differences for two product cues, country of origin (0,003) and brand image (0,053). Country of origin was of high importance among respondents above 50 years old and those between 36 years and 50 years old. Regarding other product cues, no significant differences were found among respondents belonging to different age groups. Consequently, ***Hypotheses 2 is confirmed.***

The ANOVA test showed that there were significant differences between respondents with different level of education, as far as three product cues are concerned - taste, price, and availability. Respondents with lower education comparing to those with higher education showed a higher level of significance for the price in the process of product evaluation. Respondents with higher education and a bachelor

degree paid the most attention to taste, whereas availability was the most important for respondents who held master or Ph.D. degree. Based on the results, *Hypotheses 3 is confirmed.*

Finally, significant differences were found in ranking the promotional activities (0,022) between the respondents with different income level, from 20.001-60.000 dinars (325Eur - 975Eur), which allow us to *confirm Hypotheses 4.*

TABLE I  
RESPONDENTS' DIFFERENCES IN EVALUATING THE IMPORTANCE OF THE  
PRODUCT CUES, REGARDING GENDER, AGE, EDUCATION AND INCOME LEVEL

GENDER differences in evaluating the importance of different product cues						
Product cues		Sum of Squares	df	Mean Square	F	Sig.
Taste	Between groups	1.641	1	1.641	6.187	.013
	Within groups	76.376	288	.265		
	Total	78.017	289			
Availability	Between groups	3.899	1	3.899	4.233	.041
	Within groups	265.287	288	.921		
	Total	269.186	289			
Package	Between groups	8.427	1	8.427	7.181	.008
	Within groups	337.987	288	1.174		
	Total	346.414	289			
AGE differences in evaluating the importance of different product cues						
		Sum of Squares	df	Mean Square	F	Sig.
Country of origin	Between groups	19.089	3	6.363	4.727	.003
	Within groups	384.980	286	1.346		
	Total	404.069	289			
Brand image	Between groups	9.244	3	3.081	2.598	.053
	Within groups	339.270	286	1.186		
	Total	348.514	289			
Respondents' differences in evaluating the importance of different product cues, regarding EDUCATION level						
		Sum of Squares	df	Mean Square	F	Sig.
Taste	Between groups	2.736	3	.912	3.465	.017
	Within groups	75.281	286	.263		
	Total	78.017	289			
Availability	Between groups	6.949	3	2.316	2.536	0.58
	Within groups	262.237	286	.917		
	Total	241.531	289			
Price	Between groups	6.963	3	2.312	2.821	0.39
	Within groups	234.378	286	.820		
	Total	214.314	289			
Respondents' differences in evaluating the importance of different product cues, regarding INCOME level						
		Sum of Squares	df	Mean Square	F	Sig.
Promotional activities	Between groups	13.471	3	4.490	3.274	0.22
	Within groups	392.308	286	1.372		
	Total	405.779	289			

#### V. CONCLUSION, RESEARCH LIMITATIONS AND FUTURE RESEARCH

From the theoretical perspective, our study adds to the existing understanding of product cues used when evaluating a specific product category – chocolate. The results provide insights into the level of significance of product cues, which

might have practical implication for segmentation and positioning strategies, particularly in the context of the Southeast European (more specifically Macedonian) market. Some clear differences were found between female and more educated respondents, perceiving a higher level of significance for taste and availability. These findings are in line with prior research whose authors also found taste to be a significant criteria influencing consumers' chocolate purchase [9], [20], [21]. Furthermore, the results show that female respondents place greater importance on packaging compared to males, supporting findings which have reported that packaging increases the value of the food product and entices consumers' attention to a brand [6]-[8], [17], [18]. Consequently, chocolate producers and marketers might employ innovative package solutions, stimulating color to break through the visual clutter of chocolate brands. We have also found that respondents with higher education showed a higher level of significance for the price in the chocolate evaluation, which corroborates findings that chocolate prices influence consumer behavior [2], [5], [19]. The differences between respondents with different levels of income are observed to be significant only for promotional activities. Respondents belonging to different age groups showed different importance in evaluating the country-of-origin and brand image when choosing a chocolate (e.g., those older than 35 years placed greater significance on these product cues compared to other age groups). Therefore, marketers should make efforts to design a great customer experience among young consumer. Although nutritional information was not statistically significant from the respondents' point of view, it should be considered as an important product cue. Especially in developing countries, as it is the Republic of Macedonia, consumers should be educated on various aspects of chocolate consumption, such as positive consequences on human health, potential role in disease prevention [24]. From the manufacturer's viewpoint, they should focus on producing chocolates with better nutritional profiles.

The research limitations are related to the sample type and its structure. We have used a convenience sample, with a higher proportion of female respondents. Therefore, it is impossible to generalize research findings based on the processed data but only point to their being indicative. It would be beneficial to use a representative sample in future studies. With respect to the future research, cross-country comparisons of food product in the chocolate industry may fill some of the existing gaps and provide further understanding, as well as practical implications to marketing. A greater focus on the wider range of aspects that are related to buyer behavior for chocolate, like consumers' motivations, may produce valuable information, too.

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